CLAIMS:

1. A method of communication between a communication station (1) and data carriers (2), which data carriers (2) are present within a communication range of the communication station (1),
in which for starting an interrogation cycle (IPER) the communication station (1) supplies an interrogation signal (IDB) to all the data carriers (2) present within the communication range (1), and
in which during an interrogation cycle (IPER) all the data carriers (2) present within the communication range receive the interrogation signal (IDB) and each supply a response signal (RDB) in response to the interrogation signal (IDB), and
in which of all the response signals (RDB) the communication station (1) receives some of the response signals (RDB) individually and, as a consequence, separately and the communication station (1) receives some of the response signals (RDB) at least two at a time and, as a consequence, not separately, and
in which the communication station (1) supplies an acknowledge signal (QDB) to any data carrier (2) whose response signal (RDB) has been received separately by the communication station (1), and
in which the data carrier (2) whose response signal (RDB) has been received separately by the communication station (1) receives and evaluates the acknowledge signal (QDB), and
in which as a result of the evaluation of the acknowledge signal (QDB) each data carrier (2) whose response signal (RDB) has been received separately by the communication station (1) is disabled for interrogation signals (IDB) supplied subsequently by the communication station (1), and
in which after the termination of an interrogation cycle (IPER) the communication station (1) again supplies an interrogation signal (IDB) in order to start a subsequent interrogation cycle (IPER), and
in which the communication station (1) generates each acknowledge signal (QDB) as a component of an extended interrogation signal (IDB+QDB).

2. A method as claimed in claim 1,

in which the communication between the communication station (1) and the data carriers (2) is effected in time-sequential slots (TS), and

in which the data carriers (2) supply the response signals (RDB) in time-sequential slots (TS), and

in which of all the response signals (RDB) the communication station (1) receives some of the response signals (RDB) individually and therefore separately and each appearing alone in a time slot (TS), and

in which an acknowledge signal (QDB) in the form of a digital signal is generated with the aid of the communication station (1), which digital signal represents a bit string having a given number of main bits (MB), and of which digital signal each main bit (MB) is associated with a time slot (TS), and those main bits (MB) which are associated with a time slot in which a response signal (RDB) from a data carrier (2) has appeared alone are set to a given bit value ("1").

3. A method as claimed in claim 2,

in which to each main bit (MB), which is represented by means of the digital signal, at least one additional bit (AB), which is also represented by means of the digital signal, is added, and

in which the bit value of each additional bit (AB) is generated as a parameter of a data carrier (2).

4. A method as claimed in claim 3,

in which the bit value of each additional bit (AB) is generated as a representation of the signal strength, with which signal strength the communication station (1) has received a response signal (RDB) from a data carrier (2).

5. A communication station (1) for the communication with data carriers (2), which data carriers (2) are present within a communication range of the communication station (1),

in which interrogation signal generating means (7) have been provided, with the aid of which an interrogation signal (IDB) can be generated for starting an interrogation cycle (IPER), and in which transfer means (27) have been provided, with the aid of which the generated interrogation signal (IDB) can be supplied to all the data carriers (2) present within the

communication range (1), so that the interrogation signal (IDB) can be received by all the data carriers (2) present within the communication range, and

in which station receiving means (27) have been provided, with the aid of which all the response signals (RDB) supplied by all the data carriers (2) in response to a received interrogation signal (IDB) can be received,

in which of all the response signals (RDB) some of the response signals (RDB) can be received individually and, as a consequence, separately and some of the response signals (RDB) can be received at least two at a time and, as a consequence, not separately, and

in which acknowledge signal generating means (8) have been provided, with the aid of which an acknowledge signal (QDB) can be generated for each data carrier (2) whose response signal (RDB) has been received separately, which acknowledge signal (QDB) can be supplied to the relevant data carrier (2) with the aid of the station transfer means (27), and

in which the acknowledge signal generating means (8) and the interrogation signal generating means (7) are adapted to cooperate with each other so as to enable each acknowledge signal (QDB) to be generated as a component of an extended interrogation signal (IDB+QDB).

6. A communication station (1) as claimed in claim 5,

in which the communication station (1) is adapted to communicate in time-sequential slots (TS), and

in which the data carriers (2) supply the response signals (RDB) in time-sequential slots (TS), and

in which of all the response signals (RDB) some of the response signals (RDB) can be received individually and therefore separately and each appearing alone in a time slot (TS), and

in which the acknowledge signal generating means (8) are adapted to generate an acknowledge signal (QDB) in the form of a digital signal, which digital signal represents a bit string having a given number of main bits (MB), and of which digital signal each main bit (MB) is associated with a time slot (TS), and those main bits (MB) which are associated with a time slot in which a response signal (RDB) from a data carrier (2) has appeared alone have a given bit value ("1").

7. A communication station as claimed in claim 6,

in which the acknowledge signal generating means (8) are adapted to generate an acknowledge signal (QDB) in the form of a digital signal, in which digital signal an

additional bit (AB) is added to each main bit (MB)and the bit value of each additional bit (AB) forms a representation of a parameter of a data carrier (2).

8. A communication station (1) as claimed in claim 7,
in which the acknowledge signal generating means (8) are adapted to generate an acknowledge signal (QDB) in the form of a digital signal, in which digital signal the bit value of each additional bit (AB) forms a representation of the signal strength, with which signal strength the communication station (1) has received a response signal (RDB) from a data carrier (2).

9. A data carrier (2) for the communication with a communication station (1), which communication station (1) has a communication range, in which communication range such data carriers (2) are present,
in which data carrier receiving means (40) have been provided, with the aid of which an interrogation signal (IDB) supplied by the communication station (1) can be received, and
in which response signal generating means (63) have been provided, with the aid of which a response signal (RDB) can be generated in response to the received interrogation signal (IDB), and
in which data carrier transfer means (40) have been provided, with the aid of which the generated response signal (RDB) can be supplied to the communication station (1), and
in which acknowledge signal detection means (59) have been provided, with the aid of which an acknowledge signal (QDB) supplied to the data carrier (2) by the communication station (1) and received with the aid of the data carrier receiving means (40) can be detected, and
in which the acknowledge signal detection means (59) are adapted to extract an acknowledge signal (QDB) supplied to the data carrier (2) as a component of an extended interrogation signal (IDB+QDB) and received with the aid of the data carrier receiving means (40).

10. A data carrier (2) as claimed in claim 9,
in which the data carrier is adapted to communicate in time-sequential time slots (TS), and
in which the acknowledge signal detection means (59) are adapted to detect a digital signal received as acknowledge signal (QDB), which digital signal represents a bit string having a given number of main bits (MB) and in which digital signal each main bit (MB) is associated with a time slot (TS) and those main bits (MB) which are associated with a time slot in which

a response signal (RDB) from a data carrier (2) has appeared alone have a given bit value ("1").

11. A data carrier (2) as claimed in claim 10,

in which the acknowledge signal detection means (59) are adapted to detect a digital signal received as acknowledge signal (QDB), in which digital signal at least one additional bit (AB) is added to each main bit (MB)and the bit value of each additional bit (AB) forms a representation of a parameter of the data carrier (2).

12. A data carrier (2) as claimed in claim 11,

in which the acknowledge signal detection means (59) are adapted to detect a digital signal received as acknowledge signal (QDB), in which digital signal the bit value of each additional bit (AB) forms a representation of the signal strength, with which signal strength the communication station (1) has received a response signal (RDB) from the data carrier (2).